Complete Summary

GUIDELINE TITLE

Practice parameters for the surveillance and follow-up of patients with colon and rectal cancer.

BIBLIOGRAPHIC SOURCE(S)

Anthony T, Simmang C, Hyman N, Buie D, Kim D, Cataldo P, Orsay C, Church J, Otchy D, Cohen J, Perry WB, Dunn G, Rafferty J, Ellis CN, Rakinic J, Fleshner P, Stahl T, Gregorcyk S, Ternent C, Kilkenny JW 3rd, Whiteford M. Practice parameters for the surveillance and follow-up of patients with colon and rectal cancer. Dis Colon Rectum 2004 Jun;47(6):807-17. [54 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Colon and rectal cancer

GUIDELINE CATEGORY

Evaluation

CLINICAL SPECIALTY

Colon and Rectal Surgery
Internal Medicine

INTENDED USERS

Health Care Providers
Nurses
Patients
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide evidence-supported guidelines for colorectal cancer follow-up for physicians engaged in the care of patients with colorectal cancer

TARGET POPULATION

Patients with colon and rectal cancer

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

1. Offering follow-up to patients after resection for colorectal cancer
2. Routine office visits as part of follow-up
3. Carcinoembryonic antigen measurement (note: other tumor markers are considered experimental)
4. Computed tomography (CT) scanning
5. Periodic anastomotic evaluation
6. Colonoscopy (complete visualization of colon)
7. Timing of follow-up visits and follow-up interventions

Note: The following interventions were considered but not recommended routinely in the follow-up of patients with colon and rectal cancer: chest x-ray; serum hemoglobin; Hemoccult II; liver function tests; and routine use of hepatic imaging studies

MAJOR OUTCOMES CONSIDERED

- Patient survival
- Cost-effectiveness of follow-up
- Predictive value of tests
- Quality of life
- Recurrence (local, metastatic, or secondary neoplasm)

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The source of the supporting literature was a Medline search (1966 through May 2002; parameters: human, English language; search terms: colon cancer, rectal cancer, or colorectal neoplasm and surveillance or follow-up). This search resulted in 2,599 articles. The titles of these articles were screened for relevance. Prospective, randomized, controlled trials, meta-analyses, and retrospective evaluations of randomized, controlled trials were given preference in developing these guidelines when such information was available.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Evidence from properly conducted randomized, controlled trials

Level II: Evidence from controlled trials without randomization
or
Cohort or case-control studies
or
Multiple time series, dramatic uncontrolled experiments

Level III: Descriptive case series, opinions of expert panels

Scale Used for Evidence Grading

Grade A: High-level (level I or II), well-performed studies with uniform interpretation and conclusions by the expert panel

Grade B: High-level, well-performed studies with varying interpretations and conclusions by the expert panel

Grade C: Lower level evidence (level II or less) with inconsistent findings and/or varying interpretations or conclusions by the expert panel

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Although several studies have attempted to address the issue of cost of follow-up, cost effectiveness has not been examined in the context of a prospective, randomized trial. Graham et al. reported on the cost per resectable recurrence identified using 1995 Medicare reimbursement costs. They found that carcinoembryonic antigen (CEA) was the cheapest option, costing $5,696 per recurrence; chest x-ray (CXR) cost $10,078 and colonoscopy $45,810 per recurrence. Similarly, Virgo and colleagues reported on the potential variation in cost associated with follow-up as a function of the variability of follow-up intensity. Norum and Olsen performed a theoretical cost-effectiveness analysis based on the recommended Norwegian Gastrointestinal Cancer Groups preferred follow-up strategy. This analysis found that the program was cost effective over a wide range of assumptions. It is unclear whether this analysis is generalizable to other economic situations or other follow-up strategies.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The rating schemes for the level and grade of the evidence are provided at the end of the "Major Recommendations" field.

Recommendations

- Offering follow-up for patients with completely resected colorectal cancer is justified (Evidence Level I; Grade B)
- Routine office visits should be part of a follow-up program for patients who have completed treatment for colon and rectal cancer (Level II, Grade A)

- Serum hemoglobin, Hemoccult II, and liver function tests (hepatic enzymes tests) should not be routine components of a follow-up program (Level II, Grade A)
- Carcinoembryonic antigen (CEA) should be used as a part of follow-up for colorectal cancer; the use of other tumor markers remains experimental (Level II, Grade B)
- There is insufficient data to recommend for or against chest x-ray (CXR) as part of routine colorectal cancer follow-up (Level II, Grade C)
- Routine use of hepatic imaging studies in the follow-up of colorectal cancer should not be performed (Level II, Grade B)
- Periodic anastomotic evaluation is recommended for patients who have undergone resection/anastomosis or local excision of rectal cancer (Level III, Grade B)
- Data concerning proper timing of office visits, CEA, and chest x-ray is insufficient to recommend one particular schedule of follow-up over another; however, office visits and CEA evaluations should be performed at a minimum of three times per year for the first two years of follow-up (Level II, Grade A)
- Complete visualization of the colon should be performed if practical in all patients being considered for colon or rectal cancer resection; posttreatment colonoscopy should be performed at three-year intervals (Level III, Grade A)

Definitions:

Levels of Evidence

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CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each recommendation is identified and graded (see "Major Recommendations" section).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate follow-up and surveillance of patients with colon and rectal cancer
- The potential benefits of follow-up after colon and rectal cancer include improved overall survival, better monitoring of outcome, identification of other treatable diseases found during follow-up, and greater psychologic support.

POTENTIAL HARMS

- There are potential negative physical, financial, and psychologic consequences of follow-up.
- Regardless of how often carcinoembryonic antigen (CEA) is checked or the cutoff used to separate normal and abnormal values, once an elevation is identified expert opinion suggests that the first step should be confirmation of the elevation with a second level before embarking on a more intensive workup, because false-positive elevations have been reported in 7 to 16 percent.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These guidelines are inclusive, and not prescriptive. Their purpose is to provide information on which decisions can be made, rather that dictate a specific form of treatment. These guidelines are intended for the use of all practitioners, health care workers, and patients who desire information about the management of the conditions addressed by the topics covered in these guidelines. It should be recognized that these guidelines should not be deemed inclusive of all proper methods of care or exclusive of methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding the propriety of any specific procedure must be made by the physician in light of all of the circumstances presented by the individual patient.
- The practice parameters set forth in this document have been developed from sources believed to be reliable. The American Society of Colon and Rectal Surgeons makes no warranty, guarantee, or representation whatsoever as to the absolute validity or sufficiency of any parameter included in this document, and the Society assumes no responsibility for the use or misuse of the material contained here.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2004 Jun

GUIDELINE DEVELOPER(S)

American Society of Colon and Rectal Surgeons - Medical Specialty Society

SOURCE(S) OF FUNDING

American Society of Colon and Rectal Surgeons

GUIDELINE COMMITTEE

The Standards Practice Task Force

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Task Force Members: Thomas Anthony, MD; Clifford Simmang, MD; Neil Hyman, MD; Donald Buie, MD; Donald Kim, MD; Peter Cataldo, MD; Charles Orsay, MD; James Church, MD; Daniel Otchy, MD; Jeffery Cohen, MD; W. Brian Perry, MD; Gary Dunn, MD; Janice Rafferty, MD; C. Neal Ellis, MD; Jan Rakinic, MD; Phillip Fleshner, MD; Thomas Stahl, MD; Sharon Gregorcyk, MD; Charles Ternent, MD; John W. Kilkenny III, MD; Mark Whiteford, MD

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American Society of Colon and Rectal Surgeons Web site.

Print copies: Available from the American Society of Colon and Rectal Surgeons 85 W. Algonquin Rd., Suite 550, Arlington Heights, IL 60005

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on October 19, 2004.

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